CULTURAL RESOURCES SURVEY OF THE HUGGINS TRACT, BERKELEY COUNTY, SOUTH CAROLINA

CHICORA RESEARCH CONTRIBUTION 490

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ABSTRACT

This study reports on an intensive cultural resources survey of a 58 acre tract (36 acres of high land) located in Berkeley County, South Carolina, north of Thomas Island. The work was conducted to assist Mr. John Avinger comply with Section 106 of the National Historic Preservation Act and the regulations codified in 36CFR800.

The Huggins Tract, which borders S-33 to the west and marsh to the south, is proposed for development. The surrounding area is being quickly developed with neighborhoods and commercial structures.

The proposed undertaking will require the clearing of the tract, followed by construction of various infrastructure elements, such as roads, stormwater drainage, and utilities. Individual lot construction will involve grading, additional utility construction, and subsequent building of structures. These activities have the potential to affect archaeological and historical sites and this survey was conducted to identify and assess archaeological and historical sites that may be in the project tract. For this study, due to the extensive development, an area of potential effect (APE) 0.5 mile from the proposed tract was assumed.

An investigation of the archaeological site files at the South Carolina Institute of Archaeology and Anthropology identified nine previously recorded sites (38BK217-218, 38BK822-824, 38BK827-829, and 38BK2105) in the APE. Site 38BK217 is a twentieth century scatter and house ruin; 38BK218 is a Late Archaic shell midden; 38BK822 is an Early to Middle Woodland scatter; 38BK823 is a mixed component nineteenth century and prehistoric scatter; 38BK824 is an eighteenth century scatter; 38BK827 and 38BK828 are historic scatters; 38BK829 is a nineteenth century scatter; and 38BK2105 is a Mississippian site. Sites 38BK217, 38BK827, 38BK828, and 38BK829 have been determined not eligible for the National Register of Historic Places. The remaining sites, 38BK218, 38BK822, 38BK823, 38BK824, and 38BK2105, are potentially eligible. Additional work is needed to determine National Register status.

The maps at the S.C. Department of Archives and History were also consulted to see if any National Register of Historic Places sites were in the vicinity of the project area. No sites were found in the APE. A comprehensive architectural survey has been completed for the county, showing no structures in the project area.

The archaeological survey of the tract incorporated shovel testing at 100-foot intervals on transects which were placed at 100-foot intervals. All shovel test fill was screened through ¼-inch mesh and the shovel tests were backfilled at the completion of the study. A total of 151 shovel tests were excavated along 25 transect lines.

As a result of these investigations, one site (38BK2177) was identified. This site appears to be an eighteenth century slave settlement that is potentially eligible for the National Register. Additional testing and archival work is needed, however, for a National Register determination.

Finally, it is possible that other archaeological remains may be encountered in the project area during clearing activities. Crews should be advised to report any discoveries of concentrations of artifacts (such as bottles, ceramics, or projectile points) or brick rubble to the project engineer, who should in turn report the material to the State Historic Preservation Office or to Chicora Foundation (the process of dealing

with late discoveries is discussed in 36CFR800.13(b)(3)). No construction should take place in the vicinity of these late discoveries until they have been examined by an archaeologist and, if necessary, have been processed according to 36CFR800.13(b)(3).

TABLE OF CONTENTS

LIST OF FIGURES

LIST OF TABLES

INTRODUCTION

This investigation was conducted by Dr. Michael Trinkley of Chicora Foundation, Inc. for Mr. John Avinger in Conway, South Carolina. The work was conducted to assist the client with Section 106 of the National Historic Preservation Act and the regulations codified in 36CFR800.

The project site consists of 36 acres of highland proposed to be used for residential development near Daniel and Thomas islands, South Carolina (Figure 1). The tract is bordered by S-33 to the west and marsh to the south (Figure 2).

The tract consists of slightly undulating topography with areas of wetlands. Also found in the area are forests of mixed pines and hardwoods and areas of only hardwoods. The surrounding area is being quickly developed.

The tract is proposed for a development. This work will require the construction of utilities such as electrical, sewer, and water lines as well as an expanded road system when development begins. There will likely be increased short-term noise, traffic, and dust levels associated with the project. These activities have the potential to damage or otherwise affect any cultural resources that may be present on the tract.

This study, however, does not consider any future secondary impact of the project, including increased or expanded development of this portion of Berkeley County.

We were requested by Mr. Bill Huggins to provide a proposal for a cultural resources survey on December 16, 2007. A proposal was sent on December 26. The agreement was accepted and signed by the partner John Avinger on January 8, 2008.

Initial background investigations incorporated a review of the site files at the South Carolina Institute of Archaeology and Anthropology. As a result of that work nine previously recorded sites (38BK217-218, 38BK822-824, 38BK827-829, and 38BK2105) were identified in the 0.5 mile APE. Site 38BK217 is a twentieth century scatter and house ruin; 38BK218 is a Late Archaic shell midden; 38BK822 is an Early to Middle Woodland scatter; 38BK823 is a mixed component nineteenth century and prehistoric scatter; 38BK824 is an eighteenth century scatter; 38BK827 and 38BK828 are historic scatters; 38BK829 is a nineteenth century scatter; and 38BK2105 is a Mississippian site. Sites 38BK217, 38BK827, 38BK828, and 38BK829 have been determined not eligible for the National Register of Historic Places. The remaining sites, 38BK218, 38BK822, 38BK823, 38BK824, and 38BK2105, are potentially eligible. Additional work is needed to determine National Register status.

Examination of architectural sites at the South Carolina Department of Archives and History failed to identify any National Register resources. A comprehensive architectural survey has been performed for Berkeley County, but no structures were found in the project APE (Schneider and Fick 1989).

Archival and historical research was limited to a review of secondary sources available in the Chicora Foundation files.

The survey was conducted from February 4-6, 2008 by Ms. Debi Hacker and Ms. Nicole Southerland under the direction of Dr. Michael Trinkley.

This report details the investigation of the project area undertaken by Chicora Foundation and the results of that investigation.

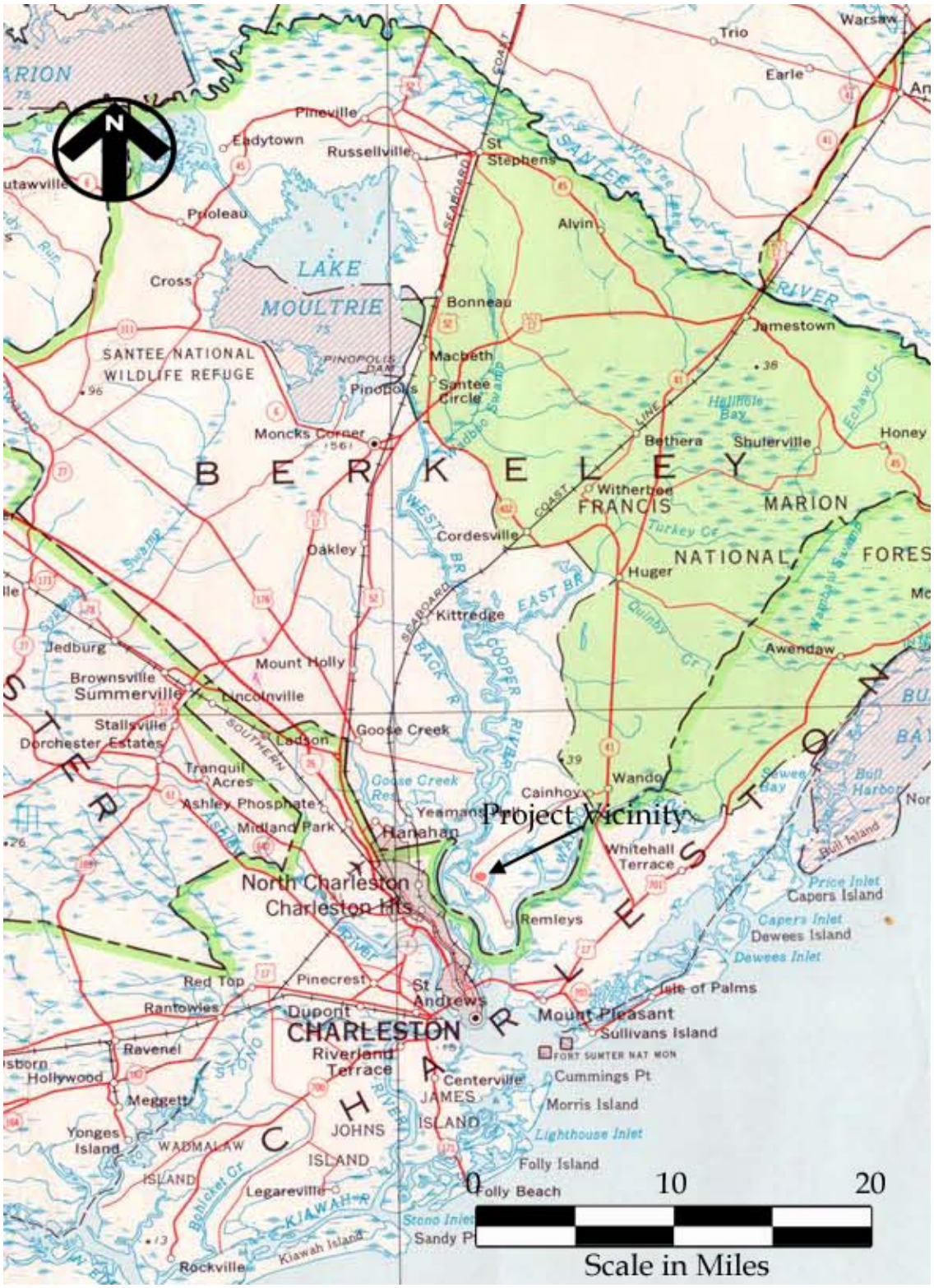

Figure 1. Project vicinity in Berkeley (basemap is USGS South Carolina 1:500,000).

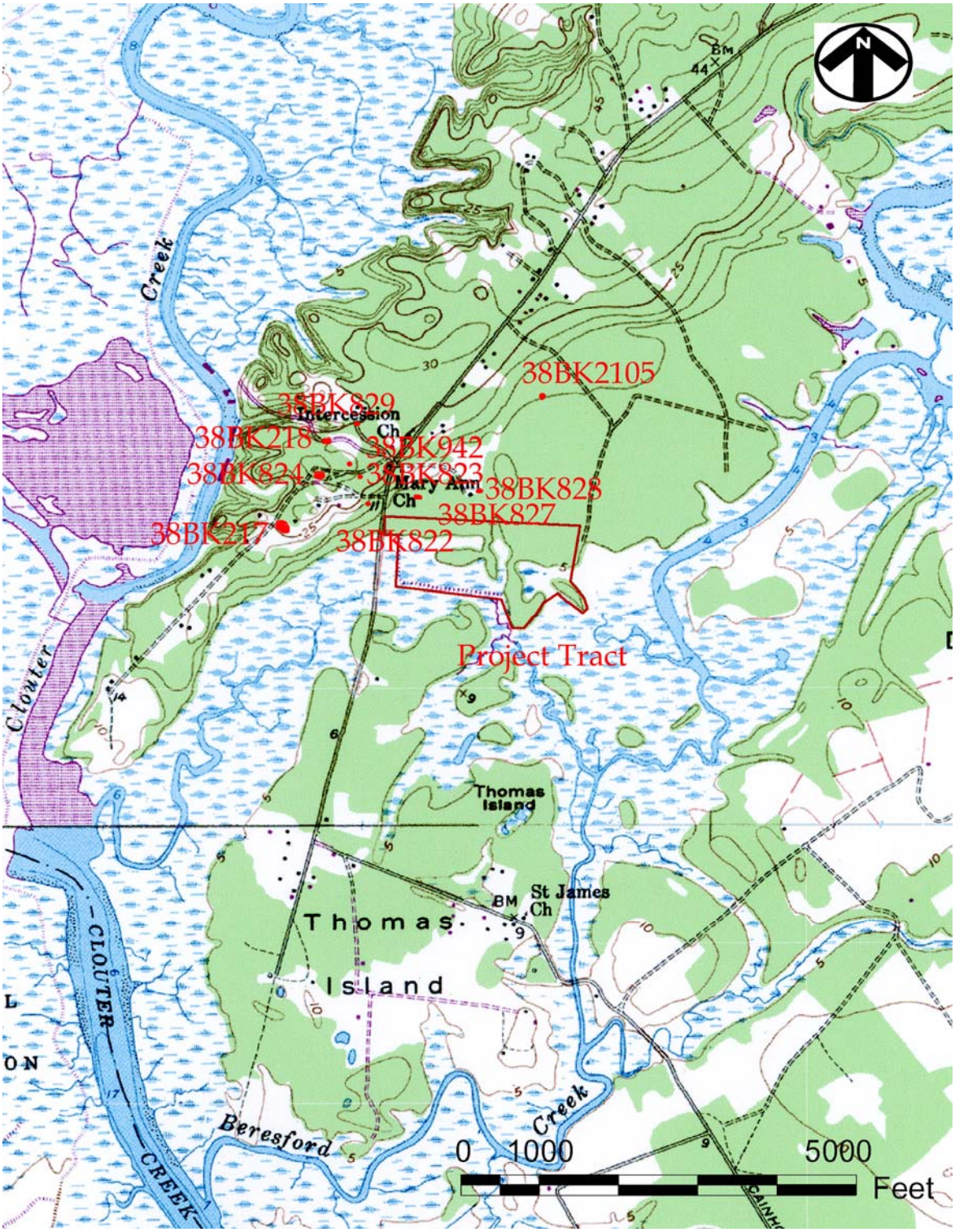

Figure 2. Project area and previously identified archaeological sites (basemap is USGS North Charleston 7.5′).

NATURAL ENVIRONMENT

Physiography

Berkeley County is situated in the lower Atlantic Coastal Plain of South Carolina. Containing about 1,100 square miles, it is bordered by Georgetown County to the northeast, Charleston County to the southeast and southwest, Dorchester County to the west, Orangeburg County to the northwest, and Clarendon and Williamsburg counties to the north.

The topography of the county is characterized by subtle undulations characteristic of beach ridge plains. The elevations range from sea level to approximately 105 feet above mean sea level (AMSL). The elevation in the project area ranges from about 5 to 10 feet AMSL.

Berkeley is drained by three significant river systems: the Santee, Wando, and Cooper rivers. The Santee has a large freshwater discharge and forms the northern boundary with neighboring Georgetown County. The Wando is a coastal river and is dominated by tidal action. The Cooper River, which flows through the center of the County, was also originally a tidal river, but has been modified by a large volume of fresh water diverted from the Santee through Lakes Marion and Moultrie. In addition, there are a number of broad, low gradient interior drainages that are present either as extensions of tidal streams or flooded bays and swales (Long 1980).

Geology and Soils

As previously mentioned, Berkeley County is made up of one broad physiographic area, often called the lower Atlantic Coastal Plain or the Atlantic Coast Flatwoods (Long 1980). The surface soils are almost entirely sedimentary and were transported into the area from other places. The geology of Berkeley County is characteristic of the region with sands, clays, gravels, and phosphates covering the surface dating to the Pleistocene (Long 1980).

A total of six soil series are found in the project area. Only a small section of the property to the northwest contains moderately well drained (Goldsboro) or somewhat excessively drained (Cainhoy) soils. The remainder of the tract has somewhat poorly drained (Lenoir and Wahee), poorly drained (Meggett) and very poorly drained (Capers Association) soils.

Figure 3. View of dense understory in the project area.


Figure 4. View of wet areas on the project tract.

The Goldsboro Series has an A horizon of very dark grayish brown (10YR3/2) loamy sand to a depth of 0.6 foot over a light yellowish brown (2.5Y6/4) loamy sand to 1.2 feet in depth. Cainhoy soils have an A horizon of dark grayish brown (10YR4/2) fine sand to 0.4 foot in depth over a yellowish brown (10YR5/6) fine sand to a depth of 1.0 foot.

Lenoir soils have an A horizon of black (10YR2/1) fine sandy loam to a depth of 0.4 foot over a dark gray (10YR4/1) very fine sandy loam to 0.6 foot in depth. The subsoil is a light yellowish brown (2.5Y6/4) very fine sandy loam to 1.3 feet in depth. The Wahee Series has an A horizon of very dark gray (10YR3/1) loam to a depth of 0.2 foot over a dark gray (10YR4/1) loam to 0.4 foot in depth. The subsoil is a light yellowish brown (10YR6/4) silty clay loam to 0.8 foot in depth.

Meggett soils have an A horizon of very dark gray (10YR3/1) loam to 0.1 foot in depth over a dark gray (10YR4/1) loam, which can occur to 0.6 foot in depth. Capers soils generally have an A horizon of dark gray (5Y4/1) loam to 0.3 foot in depth over a dark greenish gray (5BG4/1) loam to 0.9 foot in depth. These soils are found on the tidal flat surrounding the project area.

Climate

Berkeley County has a subtropical climate, characterized by warm summers, mild winters, and adequate precipitation fairly evenly spread throughout the year. Except in the summer, when maritime tropical air controls the climate of the area, the daily weather patterns are controlled by west to east moving pressure systems and associated fronts.

Yearly precipitation averages 47 inches, but ranges from 39 to 55 inches (Long 1980). The growing season, from April to September, receives an average of 31 inches or about 66% of the yearly total. The average length of the freeze-free growing season is approximately 260 days, although frosts can occur as early as October 26 and as late as April 15 (Long 1980).

Mills remarked in 1826 that Carolina was similar to European climates, lying at a similar latitude. He noted that:

> in comparing the climate of South Carolina, with similar climates in Europe, we find it lying under the same atmospheric influences with Aix, Rochelle, Montpelier, Lyons, Bordeaux, and other parts of France; with Milan, Turin,

> Padua, Mantua, and other parts of Italy (Mills 1972[1826]).

The coastal region is a moderately high risk zone for tropical storms, with 169 hurricanes being documented from 1686 to 1972 (0.59 per year) (Mathews et al. 1980). One of the most devastating in the eighteenth century was the hurricane of September 15, 1752. One report listed 92 people drowned, although the death toll, especially among the African American slaves, was likely much higher. The storm also had considerable long-term effects. Calhoun notes:

> the destruction of trees was severe; one plantation owner's loss was assessed at $50,000 and many of those trees which survived were "heart-shaken," and unfit for use. Crops were even more damaged as the storm followed a severe drought. It was necessary to enact laws to regulate the exportation and sale of corn, "Peafe," and small rice, so that "the poor may be able to purchase Provisions at a moderate Price" (Calhoun 1983).

Figure 5. View of salt marsh looking toward the project tract.

Floristics

Speaking of the coastal plain, Braun observed that:

> the vegetation of this region is in part warm temperate-subtropical, in part distinctively coastal plain, and in part temperate deciduous. It is made up of widely different forest communities – coniferous, mixed coniferous and hardwood, deciduous hardwood, and mixed deciduous and broad-leaved evergreen hardwood -- interrupted here and there by swamps, bogs, and prairies. The large number of unlike communities is related to the diverse environmental conditions of the region (Braun 1950).

Indeed, an examination of the region around Berkeley County reveals tremendous diversity. One detailed study revealed a mosaic including the oak-hickory-pine forest common to upland areas, oak-gum-bald cypress forest typical of southern floodplains, pine forests found in mesic to xeric upland sites, mesophytic broadleaved forests on more mesic slope sites, old rice fields, and a variety of swamp forests such as the tupelo-cypress, low hardwood, and ridge hardwoods (Federal Power Commission 1977). All of these forest types have different dominants and different understory vegetation (see Barry 1980).

Although a survey map of the project area shows definite areas of high land and wet land, in

the field, even the high land generally produced wet soils. Vegetation was uniform throughout the property, consisting of mixed pines and hardwoods with a dense understory of briars and palmettos. Salt marsh borders the southern boundary of the tract.

PREHISTORIC AND HISTORIC BACKGROUND

Previous Research

Berkeley County has received a significant amount of archaeological attention. There have been several surveys surrounding the current project tract. Many of the projects are S.C. Department of Transportation compliance surveys (see Trinkley 1985; Trinkley and Tippett 1980), but there are several other compliance related projects in the surrounding area (see Reid 2002; Von Loewe et al. 2000).

A survey of the property adjacent to the current project tract to the north (Trinkley 1985) identified two archaeological sites – 38BK827 and 38BK828. Both sites were historic scatters that have been determined not eligible for the National Register of Historic Places.

Prehistoric Overview

The Paleoindian period, lasting from 12,000 to 8,000 B.C., is evidenced by basally thinned, side-notched projectile points; fluted, lanceolate projectile points; side scrapers; end scrapers; and drills (Coe 1964; Michie 1977; Williams 1965). The Paleoindian occupation, while widespread, does not appear to have been intensive. Artifacts are most frequently found along major river drainages, which Michie interprets to support the concept of an economy "oriented towards the exploitation of now extinct mega-fauna" (Michie 1977:124).

Unfortunately, little is known about Paleoindian subsistence strategies, settlement systems, or social organization. Generally, archaeologists agree that the Paleoindian groups were at a band level of society (see Service 1966), were nomadic, and were both hunters and foragers. While population density, based on the isolated finds, is thought to have been low, Walthall suggests that toward the end of the period, "there was an increase in population density and in territoriality and that a number of new resource areas were beginning to be exploited" (Walthall 1980:30).

The Archaic period, which dates from 8000 to 2000 B.C., does not form a sharp break with the Paleoindian period, but is a slow transition characterized by a modern climate and an increase in the diversity of material culture. Associated with this is a reliance on a broad spectrum of small mammals, although the white tailed deer was likely the most commonly exploited mammal. The chronology established by Coe (1964) for the North Carolina Piedmont may be applied with little modification to the South Carolina coastal plain and piedmont. Archaic period assemblages, exemplified by corner-notched and broad-stem projectile points, are fairly common, perhaps because the swamps and drainages offered especially attractive ecotones.

In the Coastal Plain of the South Carolina there is an increase in the quantity of Early Archaic remains, probably associated with an increase in population and associated increase in the intensity of occupation. While Hardaway and Dalton points are typically found as isolated specimens along riverine environments, remains from the following Palmer phase are not only more common, but are also found in both riverine and interriverine settings. Kirks are likewise common in the coastal plain (Goodyear et al. 1979).

The two primary Middle Archaic phases found in the coastal plain are the Morrow Mountain and Guilford (the Stanly and Halifax complexes identified by Coe are rarely encountered). Our best information on the Middle

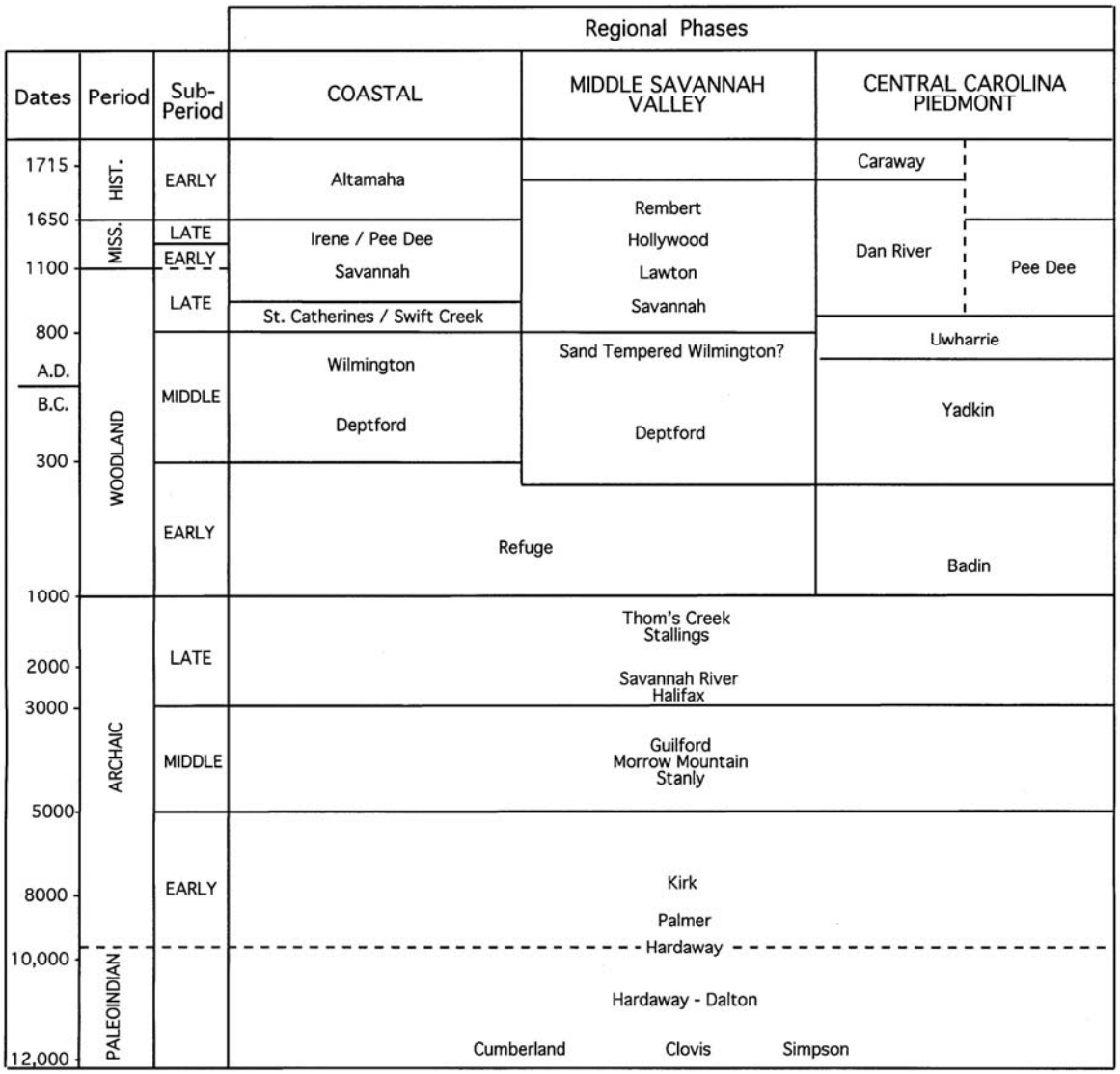

Figure 6. Generalized cultural sequence for South Carolina.

Woodland comes from sites investigated west of the Appalachian Mountains, such as the work in the Little Tennessee River Valley. The work at Middle Archaic river valley sites, with their evidence of a diverse floral and faunal subsistence base, seems to stand in stark contrast to Caldwell's Middle Archaic "Old Quartz Industry" of Georgia and South Carolina, where axes, choppers, and ground and polished stone tools are very rare.

The Late Archaic is characterized by the appearance of large, square stemmed Savannah River projectile points (Coe 1964). These people continued the intensive exploitation of the uplands much like earlier Archaic groups. The bulk of our data for this period, however, comes from work in the Uwharrie region of North Carolina.

The Woodland period begins by definition with the introduction of fired clay pottery about 2000 B.C. along the South Carolina coast (the

introduction of pottery, and hence the beginning of the Woodland period, occurs much later in the Piedmont of South Carolina). It should be noted that many researchers call the period from about 2500 to 1000 B.C. the Late Archaic because of a perceived continuation of the Archaic lifestyle in spite of the manufacture of pottery. Regardless of terminology, the period from 2500 to 1000 B.C. is well documented on the South Carolina coast and is characterized by Stallings (fiber-tempered) pottery (see Figure 6 for a synopsis of Woodland phases and pottery designations). The subsistence economy during this early period was based primarily on deer hunting and fishing, with supplemental inclusions of small mammals, birds, reptiles, and shellfish.

Like the Stallings settlement pattern, Thom's Creek sites are found in a variety of environmental zones and take on several forms. Thom's Creek sites are found throughout the South Carolina Coastal Zone, Coastal Plain, and up to the Fall Line. The sites are found into the North Carolina Coastal Plain, but do not appear to extend southward into Georgia.

In the Coastal Plain drainage of the Savannah River there is a change of settlement, and probably subsistence, away from the riverine focus found in the Stallings Phase (Hanson 1982:13; Stoltman 1974:235-236). Thom's Creek sites are more commonly found in the upland areas and lack evidence of intensive shellfish collection. In the Coastal Zone large, irregular shell middens, small, sparse shell middens; and large "shell rings" are found in the Thom's Creek settlement system.

The Deptford phase, which dates from 1100 B.C. to A.D. 600, is best characterized by fine to coarse sandy paste pottery with a check stamped surface treatment. The Deptford settlement pattern involves both coastal and inland sites.

Inland, sites such as 38AK228-W, 38LX5, 38RD60, and 38BM40 indicate the presence of an extensive Deptford occupation on the Fall Line and the Coastal Plain, although sandy, acidic soils preclude statements on the subsistence base (Anderson 1979; Ryan 1972; Trinkley 1980b). These interior or upland Deptford sites, however, are strongly associated with the swamp terrace edge, and this environment is productive not only in nut masts, but also in large mammals such as deer. Perhaps the best data concerning Deptford "base camps" comes from the Lewis-West site (38AK228-W), where evidence of abundant food remains, storage pit features, elaborate material culture, mortuary behavior, and craft specialization has been reported (Sassaman et al. 1990:96-98).

Throughout much of the Coastal Zone and Coastal Plain north of Charleston, a somewhat different cultural manifestation is observed, related to the "Northern Tradition" (e.g., Caldwell 1958). This recently identified assemblage has been termed Deep Creek and was first identified from northern North Carolina sites (Phelps 1983). The Deep Creek assemblage is characterized by pottery with medium to coarse sand inclusions and surface treatments of cord marking, fabric impressing, simple stamping, and net impressing. Much of this material has been previously designated as the Middle Woodland "Cape Fear" pottery originally typed by South (1976). The Deep Creek wares date from about 1000 B.C. to A.D. 1 in North Carolina, but may date later in South Carolina. The Deep Creek settlement and subsistence systems are poorly known, but appear to be very similar to those identified with the Deptford phase.

The Deep Creek assemblage strongly resembles Deptford both typologically and temporally. It appears this northern tradition of cord and fabric impressions was introduced and gradually accepted by indigenous South Carolina populations. During this time some groups continued making only the older carved paddle-stamped pottery, while others mixed the two styles, and still others (and later all) made exclusively cord and fabric stamped wares.

The Middle Woodland in South Carolina

is characterized by a pattern of settlement mobility and short-term occupation. On the southern coast it is associated with the Wilmington phase, while on the northern coast it is recognized by the presence of Hanover, McClellanville or Santee, and Mount Pleasant assemblages. The best data concerning Middle Woodland Coastal Zone assemblages comes from Phelps' (1983:32-33) work in North Carolina. Associated items include a small variety of the Roanoke Large Triangular points (Coe 1964:110-111), sandstone abraders, shell pendants, polished stone gorgets, celts, and woven marsh mats. Significantly, both primary inhumations and cremations are found.

On the Coastal Plain of South Carolina, researchers are finding evidence of a Middle Woodland Yadkin assemblage, best known from Coe's work at the Doerschuk site in North Carolina (Coe 1964:25-26). Yadkin pottery is characterized by a crushed quartz temper and cord marked, fabric impressed, and linear check stamped surface treatments. The Yadkin ceramics are associated with medium-sized triangular points, although Oliver (1981) suggests that a continuation of the Piedmont Stemmed Tradition to at least A.D. 300 coexisted with this Triangular Tradition. The Yadkin series in South Carolina was first observed by Ward (1978, 1983) from the White's Creek drainage in Marlboro County, South Carolina. Since then, a large Yadkin village has been identified by DePratter at the Dunlap site (38DA66) in Darlington County, South Carolina (Chester DePratter, personal communication 1985) and Blanton et al. (1986) have excavated a small Yadkin site (38SU83) in Sumter County, South Carolina. Research at 38FL249 on the Roche Carolina tract in northern Florence County revealed an assemblage including Badin, Yadkin, and Wilmington wares (Trinkley et al. 1993:85-102). Anderson et al. (1982:299-302) offer additional typological assessments of the Yadkin wares in South Carolina.

Over the years the suggestion that Cape Fear might be replaced by such types as Deep Creek and Mount Pleasant has raised considerable controversy. Taylor, for example, rejects the use of the North Carolina types in favor of those developed by Anderson et al. (1982) from their work at Mattassee Lake in Berkeley County (Taylor 1984:80). Cable (1991) is even less generous in his denouncement of ceramic constructs developed nearly a decade ago, also favoring adoption of the Mattassee Lake typology and chronology. This construct, recognizing five phases (Deptford I - III, McClellanville, and Santee I), uses a type variety system.

Regardless of terminology, these Middle Woodland Coastal Plain and Coastal Zone phases continue the Early Woodland Deptford pattern of mobility. While sites are found all along the coast and inland to the Fall Line, shell midden sites evidence sparse shell and artifacts. Gone are the abundant shell tools, worked bone items, and clay balls. Recent investigations at Coastal Zone sites such as 38BU747 and 38BU1214, however, have provided some evidence of worked bone and shell items at Deptford phase middens (see Trinkley 1990).

In many respects the South Carolina Late Woodland may be characterized as a continuation of previous Middle Woodland cultural assemblages. While outside the Carolinas there were major cultural changes, such as the continued development and elaboration of agriculture, the Carolina groups settled into a lifeway not appreciably different from that observed for the previous 500 to 700 years (cf. Sassaman et al. 1990:14-15). This situation would remain unchanged until the development of the South Appalachian Mississippian complex (see Ferguson 1971).

The South Appalachian Mississippian Period (ca. A.D. 1100 to 1640) is the most elaborate level of culture attained by the native inhabitants and is followed by cultural disintegration brought about largely by European disease. The period is characterized by complicated stamped pottery, complex social organization, agriculture, and the construction of temple mounds and ceremonial centers. The earliest phases include the Savannah and Pee Dee (A.D. 1200 to 1550).

Historic Overview

The English established the first permanent settlement in what is today South Carolina in 1670 on the west bank of the Ashley River. Like other European powers, the English were lured to the New World for reasons other than the acquisition of land and promotion of agriculture. The Lord Proprietors, who owned the colony until 1719-1720, intended to discover a staple crop whose marketing would provide great wealth through the mercantile system.

By 1680 the settlers of Albemarle Point had moved their village across the bay to the tip of the peninsula formed by the Ashley and Cooper rivers. This new settlement at Oyster Point would become modern day Charleston. The move provided not only a more healthful climate and an area of better defense, but:

> [t]he cituation of this Town is so convenient for public Commerce that it rather seems to be the design of some skillful Artist than the accidental position of nature (Mathews 1954:153).

The early settlers of the Carolina colony came from other mainland colonies, England, and the European continent. But the future of Carolina was largely directed by the large number of colonists from the English West Indies. This Caribbean connection has been discussed by Waterhouse (1975), who argues that the Caribbean immigrants were largely from old families of economic and political prominence, which formed the Barbados elite. Waterhouse observes that while elsewhere in the American colonies the early settled families were displaced from their established positions of power and economic superiority by newcomers, this did not occur in South Carolina. In Carolina,

> a relatively large proportion of those who, in the middle of the eighteenth century, were among the wealthier inhabitants, were descended from those families who had arrived in the colony during the first twenty years of its settlement (Waterhouse 1975).

This immigration turned out to be a significant factor in the stability and longevity of South Carolina's colonial elite. It also firmly established the foundations of slavery and cash crop plantations.

Many of these Barbadian immigrants settled in the Goose Creek area, southeast of the survey corridor, forming one of the most influential political and economic groups in the colony (Stoney 1938). The "Goose Creek Men" included individuals such as Maurice Mathews, James Moore, and John Boone. They favored increased Indian slavery, trade with the pirates or privateers that sailed the Carolina coast, and generally ignored the efforts of the Lords Proprietors to control the Colony's economic and political future. While the political power of the Goose Creek faction peaked in the 1720s, it continued to evidence considerable economic power well into the late 1740s (see Morgan 1980; Sirmans 1966).

Early agricultural experiments, which involved olives, grapes, silkworms, and oranges, were less than successful. While the Indian trade was profitable to many of the Carolina colonies, it did not provide the Proprietors with the wealth they were expecting from the new colony. This trade was also limited since the Indian population was so dramatically reduced by European disease, the sale of alcohol, and slavery.

Cattle raising was also an easy way to exploit the region's land and resources, offering a relatively secure return for very little capital investment. Few slaves were necessary to manage the herd. The mild climate of the low country made winter forage more abundant and winter shelters unnecessary. The salt marshes on the coast, useless for other purposes, provided excellent grazing and eliminated the need to provide salt licks. More interior swamps found

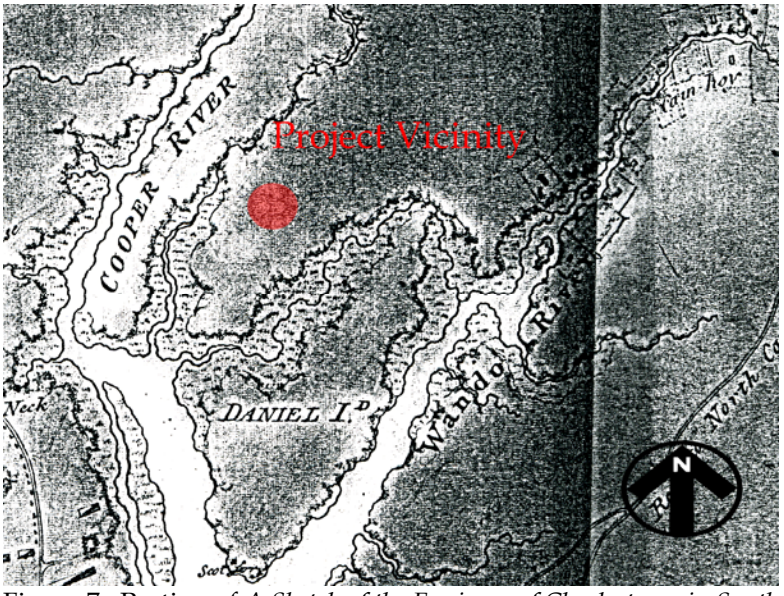

Figure 7. Portion of *A Sketch of the Environs of Charlestown in South Carolina* showing the project vicinity.

similar vegetation and provided a constant water supply (Coon 1972; Dunbar 1961). Production of cattle, hogs, and sheep quickly outstripped local consumption and by the early eighteenth century, beef and pork were principal exports of the Colony to the West Indies (Ver Steeg 1975). This allowed the ties between Carolina and the Caribbean to remain strong and provided essential provisions to the large scale, single crop plantations.

Rice and indigo both competed for the attention of Carolina planters. Although introduced at least by the 1690s, rice did not become a significant staple crop until the early eighteenth century. At that time, it not only provided the Proprietors with the economic base that the mercantile system required, but it formed the basis of South Carolina's plantation system – slavery.

South Carolina's economic development during the pre-Revolutionary War period involved a complex web of interactions between slaves, planters, and merchants. By 1710, slaves were starting to be concentrated on a few, large slave-holding plantations. By the close of the eighteenth century some South Carolina plantations had a ratio of slaves to whites that was 27:1 (Morgan 1977). And by the end of the century, over half of eastern South Carolina's white population held slaves. With slavery came, to many, unbelievable wealth. Coclanis notes that:

> on the eve of the American Revolution, the white population of the low country was by far the richest single group in British North America. With the area's wealth based largely on the expropriation by whites of the golden rice and blue dye produced by black slaves, the Carolina low country had by 1774 reached a level of aggregate wealth greater than that in many parts of the world today. The evolution of Charleston, the center of the low-country civilization, reflected not only the growing wealth of the area but also its spirit and soul (Coclanis 1989).

An early Revolutionary era map – *A Sketch of the Environs of Charlestown in South Carolina* -- shows the project area, however no settlements are shown in the vicinity (Figure 7). The closest settlement is Cainhoy to the northeast.

Only certain areas of the low country, however, were suitable for rice production. During the early years, rice was grown as an upland crop, in small fields adjacent to freshwater streams where water could be easily impounded and applied to the crop. By the early 1700s, planters found that upland swamps, such as those in the Goose Creek area, were even better suited for rice, although the soils were quickly exhausted (Meriwether 1940; Sellers 1934). These upland

swamps, distinct from well-drained uplands, remained the focus of Carolina rice agriculture during the entire Colonial period.

Hewat, writing in 1779, describes the process of upland swamp rice cultivation:

> after the planter has obtained his tract of land, and built a house upon it, he then begins to clear his field of that load of wood with which the land is covered. Having cleared his field, he next surrounds it with a wooded fence, to exclude all hogs, sheep, and cattle from it. This field he plants with rice . . . year after year, until the lands are exhausted, or yield not a crop sufficient to answer his expectations. Then it is forsaken, and a fresh spot of land is cleared and planted, which is also treated in like manner, and in succession forsaken and neglected (Hewat 1836).

This rather simplistic commentary failed to observe the engineering feat that upland swamp rice cultivation really was. Clearing, which alone was a monumental undertaking, was followed by the construction of dams, dikes, and trenches. By one estimate, a 500 acre rice field required 60 miles of dikes and ditches (Gunn 1976). Fields were carefully leveled to ensure that they could be completely covered by water. Rice was planted during two periods – March 10 to April 10 and June 1 to June 10 – avoiding may since vast migrations of "rice birds" passed through the state during that period and could destroy a crop. Rice was harvested in late August.

By 1730 the majority of the population of the colony, both rural and urban, was black (Wood 1974). By 1850, 46% of Charleston District's population (which included today's Berkeley County) consisted of African-American slaves (DeBow 1854), although Hilliard (1984) indicates that more than 60% of the Charleston slaveholders by 1860 owned fewer than 10 slaves. Regardless, there remained vast plantations where the owner's wealth was achieved by the labor of black slaves.

During the eighteenth century, the profits to be gained from rice were extraordinary, ranging from 12% to nearly 28% net return on the investment, well exceeding other cash crops such as tobacco or indigo (see Coclanis 1989). Charleston was the mecca around which the economic, political, and social world of Carolina revolved. Charleston provided the essential opportunity for conspicuous consumption, a mechanism that allowed the display of wealth accumulated from the plantation system.

By the end of the eighteenth century and the beginning of the nineteenth century, the rate of return on rice had been reduced, at best, to about 2% and many years the rate of return was a staggering –3% to –7%. In 1859, just before the start of the Civil War, the return is reported to

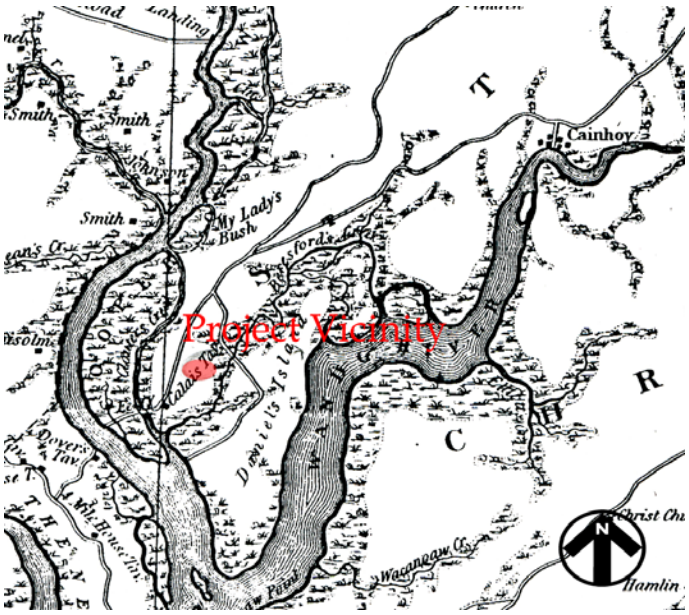

Figure 8. Portion of Mills' *Atlas* showing the project area.

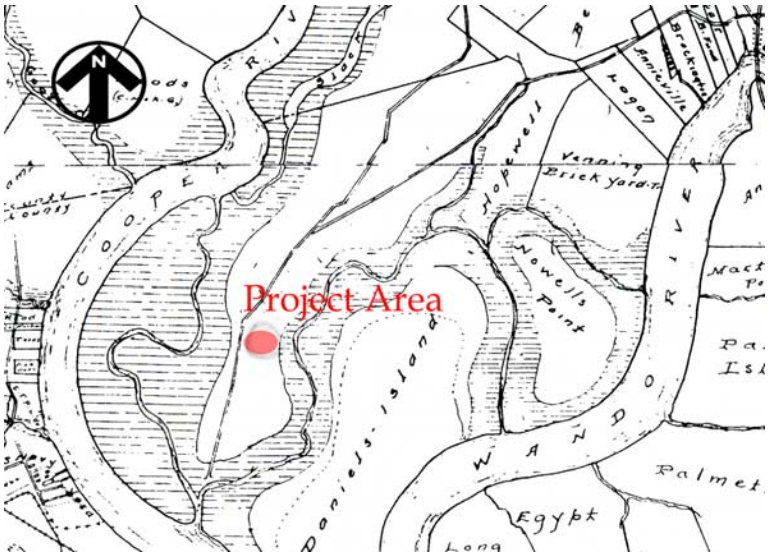

Figure 9. Portion of the 1900-1962 *Map of Berkeley and Parts of Charleston and Dorchester Counties* showing the project area.

have been –28%. As Coclanis observes:

> the economy of the South Carolina low country collapsed in the nineteenth century. Collapse did not some suddenly – many feel, for example, that the area's "golden age" lasted until about 1820 – but come it did nonetheless. By the late nineteenth century it was clear that the forces responsible for the area's earlier dynamism had been routed, the dark victory of economic stagnation virtually complete (Coclanis 1989).

It was the demise of these areas that facilitated the growth of the town of Summerville in 1831, located southwest of the survey corridor. The town of Summerville was established when the railroad company laid out 300 acres of town lots for sale (Charleston Courier 8/20/1831). Summerville was mainly settled by planters from the area who built houses and summer settlements there. Mills' *Atlas,* showing the Charleston District (which contained the current project area) in 1825, fails to show any settlements in the project area (Figure 8).

By 1832, Summerville had grown to the extent that the area was referred to as an "Old Summerville" and a "New Summerville" when the S.C. Canal and Railroad Company began building a railroad line (Walker 1941). Growth in the general area prompted the creation of new counties such as Colleton County in 1800 and Dorchester County in 1897. The area of Charleston District that contained the project corridor became Berkeley County in 1882.

In 1888, the D.W. Taylor Company owned 25,000 acres, mostly in Berkeley County, and a ten-mile long rail line, the Summerville and St. John's Railroad. Taylor had mills in Summerville and at the upper end of its holdings (Fetters 1990:31). By 1909, the firm had cut over most of its land, and the rail line was purchased by Prettyman Lumber

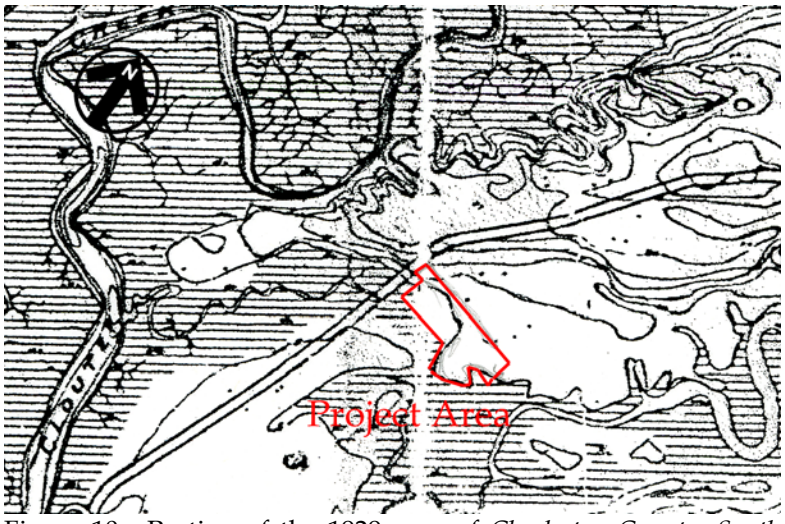

Figure 10. Portion of the 1929 map of *Charleston County, South Carolina with Portions of Adjacent Counties Showing State and County Roads* showing the project area.

Company, which began in Summerville by J. Frank Prettyman in 1902. By 1910, Prettyman was cutting 40,000 feet of lumber daily. The railroad eventually extended as far as Cross, where it connected with the Atlantic Coast Line (Fetters 1990:31-32).

The 1900 to 1962 *Map of Berkeley and Parts of Charleston and Dorchester Counties* fails to show who owned the portion of property that contains the project area (Figure 9).

The 1929 map of *Charleston County South Carolina with Portions of Adjacent Counties Showing State and County Roads* shows five structures near the project tract (Figure 10). None of these structures, however, were located during the current survey – it appears that three of the structures may have been located on the higher ground on the property just to the north of the project tract (and may represent structures identified by Trinkley 1985).

Figure 11. Portion of the 1951 *General Highway and Transportation Map of Berkeley County* showing the project area.

The 1951 *General Highway and Transportation Map of Berkeley County* fails to show any settlements in the project area (Figure 11). The majority of structures appear to be located to the north along S-33, although one structure is near the project area to the south.

METHODS

Archaeological Field Methods

The initially proposed field techniques involved the placement of shovel tests at 100-foot intervals along transects placed at 100-foot intervals.

All soil would be screened through ¼-inch mesh, with each test numbered sequentially by transect. Each test would measure about 1 foot square and would normally be taken to a depth of at least 1.0 foot or until subsoil was encountered. All cultural remains would be collected, except for mortar and brick, which would be quantitatively noted in the field and discarded. Notes would be maintained for profiles at any sites encountered.

The information required for completion of South Carolina Institute of Archaeology and Anthropology revisit site forms would be collected and photographs would be taken, if warranted in the opinion of the field investigators.

A total of 25 transects were set up running west to east within the project area. Shovel tests were performed to the south with a total of 151 excavated. The wetland areas were subjected to a pedestrian survey.

The GPS positions were taken with a WAAS enabled Garmin 76 rover that tracks up to twelve satellites, each with a separate channel that is continuously being read. The benefit of parallel channel receivers is their improved sensitivity and ability to obtain and hold a satellite lock in difficult situations, such as in forests or urban environments where signal obstruction is a frequent problem. WAAS or Wide Area Augmentation System, is a system of satellites and ground stations that provide GPS signal corrections, yielding higher position accuracy – generally an accuracy of 10 feet or better 95% of the time. Both are vital concerns for the study area.

Figure 12. Working in the site area.

Architectural Survey

As previously discussed, we elected to use a 0.5 mile area of potential effect (APE). The architectural survey would record buildings, sites, structures, and objects that appeared to have been constructed before 1950.

Figure 13. Transects on the project tract.

Typical of such projects, this survey would record only those which have retained "some measure of its historic integrity" (Vivian n.d.:5) and which were visible from public roads.

For each identified resource, we would complete a Statewide Survey Site form and at least two representative photographs would be taken. Permanent control numbers would be assigned by the Survey Staff and the S.C. Department of Archives and History at the conclusion of the study. The Site Forms for the resources identified during this study would be submitted to the S.C. Department of Archives and History.

Site Evaluation

Archaeological sites will be evaluated for further work based on the eligibility criteria for the National Register of Historic Places. Chicora Foundation only provides an opinion of National Register eligibility and the final determination is made by the lead federal agency, in consultation with the State Historic Preservation Officer at the South Carolina Department of Archives and History.

The criteria for eligibility to the National Register of Historic Places is described by 36CFR60.4, which states:

> the quality of significance in American history, architecture, archaeology, engineering, and culture is present in districts, sites, buildings, structures, and objects that possess integrity of location, design, setting, materials, workmanship, feeling, and association, and
>
> a. that are associated with events that have made a significant contribution to the broad patterns of our history; or
>
> b. that are associated with the lives of persons significant in our past; or
>
> c. that embody the distinctive characteristics of a type, period, or method of construction or that represent the work of a master, or that possess high artistic values, or that represent a significant and distinguishable entity whose components may lack individual distinction; or
>
> d. that have yielded, or may be likely to yield, information important in prehistory or history.

National Register Bulletin 36 (Townsend et al. 1993) provides an evaluative process that contains five steps for forming a clearly defined explicit rationale for either the site's eligibility or lack of eligibility. Briefly, these steps are:

- identification of the site's data sets or categories of archaeological information such as ceramics, lithics, subsistence remains, architectural remains, or sub-surface features;
- identification of the historic context applicable to the site, providing a framework for the evaluative process;
- identification of the important research questions the site might be able to address, given the data sets and the context;
- evaluation of the site's archaeological integrity to ensure that the data sets were sufficiently well preserved to address the research questions; and

- identification of important research questions among all of those which might be asked and answered at the site.

This approach, of course, has been developed for use documenting eligibility of sites being actually nominated to the National Register of Historic Places where the evaluative process must stand alone, with relatively little reference to other documentation and where typically only one site is being considered. As a result, some aspects of the evaluative process have been summarized, but we have tried to focus on an archaeological site's ability to address significant research topics within the context of its available data sets.

Laboratory Analysis

The cleaning and analysis of artifacts was conducted in Columbia at the Chicora Foundation laboratories. These materials have been catalogued and accessioned for curation at the South Carolina Institute of Archaeology and Anthropology, the closest regional repository. A site form for the identified archaeological site has been filed with the South Carolina Institute of Archaeology and Anthropology. Field notes have been prepared for curation using archival standards and will be transferred to that agency as soon as the project is complete.

Analysis of the collections followed professionally accepted standard with a level of intensity suitable to the quantity and quality of the remains. In general, the temporal, cultural, and typological classifications of historic remains follow such authors as Price (1979) and South (1977). Prehistoric materials were defined by such authors as Yohe (1996), Blanton et al. (1986), and Oliver et al. (1986).

RESULTS OF SURVEY

Introduction

As a result of this cultural resources survey, one archaeological site (38BK2177) was recorded (Figure 14). The site is an eighteenth century domestic site, possibly a slave settlement. The site is potentially eligible for the National Register. Additional testing and research is needed to determine National Register eligibility.

The architectural survey did not identify any structures or other resources in the project APE. An architectural survey has been performed for Berkeley County and those records are thought to be complete (Schneider and Fick 1989).

Archaeological Resource

38BK2177

Site 38BK2177 (Figure 15) is a probable eighteenth century slave settlement and small Middle Woodland scatter located on a peninsula at the edge of a salt marsh at an elevation of about 5 feet AMSL. A UTM coordinate for the site is 600604E 3638625N (NAD27 datum). The area is covered in a pine and hardwood forest with an understory of palmettos.

The site was first identified through shovel testing at 100-foot intervals when Transect 17, Shovel test 12 (1000R1000) was positive, producing two pieces of Colono ware. Shovel testing was then resumed at 50-foot intervals along the transect line. An additional transect line was set up 50 feet west of Transect 17, which was tested at 50-foot intervals and Transect 16 was tested at 50-foot intervals. Marsh was located just west of Transect 16 and east of Transect 17, so testing was contained within the 100 foot wide strait.

According to the Berkeley County Soil Survey (Long 1980), the project area is located in an area of the somewhat poorly drained Wahee loam, which has an A horizon of very dark gray (10YR3/1) loam to a depth of 0.2 foot over a dark gray (10YR4/1) loam to 0.4 foot in depth. The subsoil is a light yellowish brown (10YR6/4) silty clay loam to 0.8 foot in depth. The soils in the site area, however, appeared to be better drained, consisting of an A horizon of grayish brown (10YR5/2) sand to about 1.2 feet in depth over a yellowish brown (10YR5/6) sand. Some of the yellowish brown sand extended to about 1.5 feet where it became a stiff clay.

As previously mentioned, the historic component of the site appears to date to the eighteenth century, however, it could date earlier

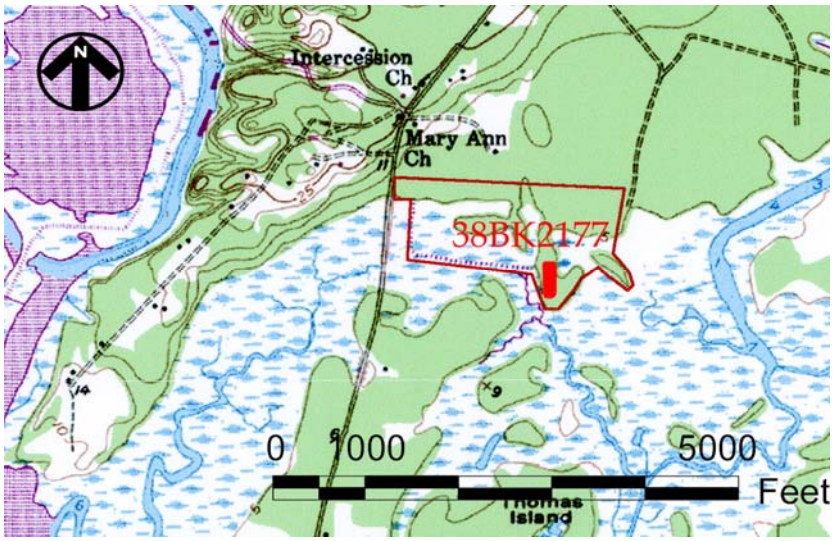

Figure 14. Topo map showing the identified site, 38BK2177.

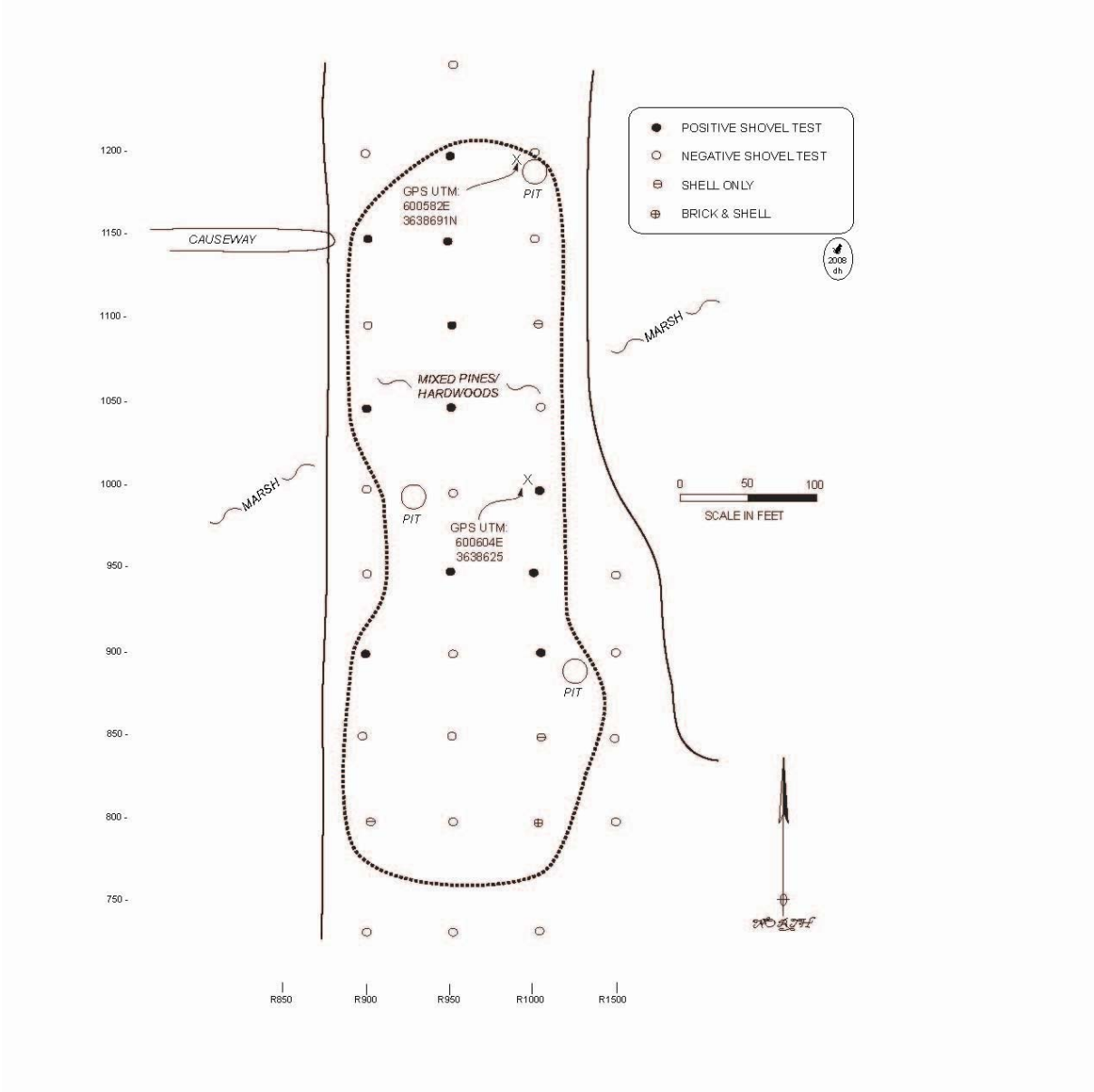

Figure 15. Sketch map of 38BK2177.

Table 1.
Artifacts found at 38BK2177

	900 R900	900 R1000	950 R950	950 R1000	1000 R1000	1050 R900	1050 R950	1100 R950	1150 R900	1150 R950	1200 R950	Total
Kitchen Group												
Colono ware		2		3	2			1		1		
Stoneware, Albany											1	
Ethnobotanical											1	
Architecture Group												
Nail	1	1				1	1					
Nail, handwrought			1									
Window glass									1	2	1	
Brick			Yes									
Tobacco Group												
Pipe stem										1		
Other												
UID iron											2	
Shell			Yes	Yes			Yes			Yes		
Prehistoric												
Deptford fabric impressed										2		
Total												**25**

(Table 1). Although somewhat of a small scatter, the primary ceramic found at the site is Colono ware, a slave made pottery. The only other ceramic is one piece of stoneware – no European wares were found. In addition, the site produced architectural related items such as nails, window glass, and brick. One tobacco related artifact, a pipe stem, was also recovered. Shell was also found in most of the shovel tests.

The prehistoric component of the site was very small and consists of two Deptford sherds (mendable), which were found in a single shovel test. These date to the Middle Woodland period.

Also found in the site area are three pits (Figure 16), each measuring approximately 6 to 8 feet in diameter and about 4 feet in depth. No cultural artifacts were found in the pits, and two of the pits were somewhat irregular in shape. A fourth pit of similar size is located outside the site area. A shovel test was performed in the northern-most pit, which produced a very pale brown sand for about 1.5 feet. The function of these pits is undetermined.

The site area, including the positive shovel tests, tests with just shell and brick, and the three pits, measures approximately 400 feet north to south by 100 feet east to west. As mentioned, the tidal marsh marks the eastern and western

Figure 16. View of one of the pits in the site area.

boundaries of the site.

Although the site is somewhat sparse, the materials appear to be very early. Early maps fail to show any settlements in this area of Berkeley County, so this site may be able to provide information about early slave settlements near Thomas and Daniel islands. Site 38BK2177 is potentially eligible for the National Register of Historic Places. Additional testing, performed at 25-foot intervals or closer, should be excavated, as well as some small test units to attempt to locate any features such as wall trenches. Additional archival work including a detailed title search should also be attempted.

No work should be performed in this area until the site has been properly studied and the site function and integrity have been determined.

Architectural Resources

There are no previously recorded National Register buildings, districts, structures, or objects in the 0.5 mile APE. The area is being rapidly developed with commercial and residential developments.

CONCLUSIONS

This study involved the examination of approximately 58 acres (36 acres of high ground) in Berkeley County, north of Thomas Island to be used for a neighborhood of single family homes. This work, conducted for Mr. John Avinger examined archaeological sites and cultural resources found on the proposed project area and is intended to assist the client in complying with their historic preservation responsibilities.

As a result of this investigation, one archaeological site, 38BK2177, was identified. The site appears to be an eighteenth century slave settlement, however, additional testing and archival research is needed to assess National Register potential.

A survey of public roads within 0.5 mile confirmed the findings of the 1989 county-wide survey (Schneider and Fick 1989). The area is being quickly developed into commercial and residential communities.

It is possible that other archaeological remains may be encountered during construction activities. As always, contractors should be advised to report any discoveries of concentrations of artifacts (such as bottles, ceramics, or projectile points) or brick rubble to the project engineer, who should in turn report the material to the State Historic Preservation Office, or Chicora Foundation (the process of dealing with late discoveries is discussed in 36CFR800.13(b)(3)). No further land altering activities should take place in the vicinity of these discoveries until they have been examined by an archaeologist and, if necessary, have been processed according to 36CFR800.13(b)(3).

SOURCES CITED

Anderson, David G.

1979 *Excavations at Four Fall Line Sites: the Southeastern Beltway Project.* Commonwealth Associates, Inc., Jacksonville, Michigan. Submitted to the South Carolina Department of Highways and Public Transportation, Columbia.

Anderson, David G., Charles E. Cantley, and A. Lee Novick

1982 *The Mattassee Lake Sites: Archaeological Investigations Along the Lower Santee River in the*

1983 *Coastal Plain of South Carolina.* Commonwealth Associates, Jackson, Michigan.

Barry, John M.

1980 *Natural Vegetation of South Carolina*. University of South Carolina Press, Columbia.

Blanton, Dennis B., Christopher T. Espenshade, and Paul E. Brockington, Jr.

1986 *An Archaeological Study of 38SU83: A Yadkin Phase Site in the Upper Coastal Plain of South Carolina.* Garrow and Associates, Inc., Atlanta.

Braun, Lucy E.

1950 *Deciduous forests of Eastern North America.* Reprinted. The Free Press, New York.

Cable, John

1991 *Archaeological Test Excavations on the Northeastern Perimeter of the Buck Hall Site (38CH644), Francis Marion National Forest, South Carolina*. New South Associates, Irmo, South Carolina.

Caldwell, Joseph R.

1958 *Trend and Tradition in the Prehistory of the Eastern United States.* Memoirs of the American Anthropological Association 88.

Calhoun, Jeanne

1983 *The Scourging Wrath of God: Early Hurricanes in Charleston, 1700-1804.* Leaflet No. 29. The Charleston Museum, Charleston, South Carolina.

Coclanis, Peter A.

1989 *The Shadow of a Dream: Economic Life and Death in the South Carolina Low Country 1670-1920.* Oxford University Press, New York.

Coe, Joffre L.

1964 *The Formative Cultures of the Carolina Piedmont*. Transactions of the American Philosophical Society 54(5).

Coon, David L.

1972 *The Development of Market Agriculture in South Carolina.* Ph.D. dissertation, University of Illinois. University Microfilms, Ann Arbor.

DeBow, J.D.B.

1854 *Statistical View of the United States.* A.O.P. Nicholson, Washington, D.C.

Derting, Keith M., Sharon L. Pekrul, and Charles J. Rinehart
1991 *A Comprehensive Bibliography of South Carolina Archaeology*. Research Manuscript 211. South Carolina Institute of Archaeology and Anthropology, University of South Carolina, Columbia.

Dunbar, Gary S.
1961 Colonial Carolina Cowpens. *Agricultural History* 35:125-130.

Federal Power Commission
1977 *Final Environmental Impact Statement – Santee-Cooper Project No. 199 – South Carolina.* Federal Power Commission, Washington, D.C.

Ferguson, Leland G.
1971 *South Appalachian Mississippian*. Ph.D. dissertation, University of North Carolina, Chapel Hill. University Microfilms, Ann Arbor, Michigan.

Fetters, Thomas
1990 *Logging Railroads of South Carolina.* Heimburger House Publishing Company, Forest Park, Illinois.

Goodyear, Albert C., John H. House, and Neal W. Ackerly
1979 *Laurens-Anderson: An Archaeological Study of the Inter-Riverine Piedmont*. Anthropological Studies 4, Occasional Papers of the Institute of Archaeology and Anthropology, University of South Carolina, Columbia.

Gunn, Victoria Reeves
1976 Hofwyl Plantation. Ms. on file, Georgia Department of Natural Resources, Atlanta.

Hanson, Glen T., Jr.
1982 The Analysis of Late Archaic-Early Woodland Adaptive Change Along the Middle Savannah River: A Proposed Study. *South Carolina Institute of Archaeology and Anthropology Notebook* 14:1-38.

Hewat, Alexander D.
1836 An Historical Account of the Rise and Progress of the Colonies of South Carolina and Georgia (1779). In *Historical Collections of South Carolina*, edited by B.R. Carroll. Harper & Brothers, New York.

Hilliard, Sam B.
1984 *Atlas of Antebellum Southern Agriculture.* Louisiana State University Press, Baton Rouge.

Long, Bobby M.
1980 *Soil Survey of Berkeley County, South Carolina.* U.S.D.A., Soil Conservation Service, Washington, D.C.

Mathews, Maurice
1954 A Contemporary View of Carolina in 1686. *South Carolina Historical Magazine* 55:153-159.

Mathews, Thomas, Frank Stapor, Jr., Charles Richter, John Miglarese, Michael McKenzie, and Lee Barclay
1980 *Ecological Characterization of the Sea Island Region of South Carolina and Gerogia,* volume 1. Office of Biological Services, United States Fish and Wildlife Service, Washington, D.C.

Meriwether, Robert L.
1940 *The Expansion of South Carolina 1729-1765.* Southern Publishers, Kingsport, Tennessee.

Michie, James
1977 The Late Pleistocene Human Occupation of South Carolina. Unpublished Honor's Thesis, Department of Anthropology, University of South Carolina, Columbia.

Mills, Robert
1972[1826]*Statistics of South Carolina*. Hurlbut and Lloyd, Charleston, South Carolina. 1972 facsimile ed. The Reprint Company, Spartanburg, South Carolina.

Morgan, Phillip D.
1977 *The Development of Slave Culture in Eighteenth Century Plantation America.* Ph.D. dissertation. University College, London.

1980 A Profile of a Mid-Eighteenth Century South Carolina Parish: The Tax Return of St. James', Goose Creek. *South Carolina Historical Magazine* 81:51-65.

Oliver, Billy L.
1981 *The Piedmont Tradition: Refinement of the Savannah River Stemmed Point Type*. Unpublished Master's Thesis, Department of Anthropology, University of North Carolina, Chapel Hill.

Oliver, Billy L., Stephen R. Claggett, and Andrea Lee Novick
1986 Lithic Analysis. In *Indian and Freedmen Occupation at the Fish Hall Site (38BU805), Beaufort County, South Carolina,* edited by Michael Trinkley, pp. 183-207. Research Series 1. Chicora Foundation, Inc., Columbia.

Phelps, David S.
1983 Archaeology of the North Carolina Coastal Plain: Problems and Hypotheses. In *The Prehistory of North Carolina: An Archaeological Symposium,* edited by Mark A. Mathis and Jeffrey J. Crow, pp. 1-52. North Carolina Division of Archives and History, Department of Cultural Resources, Raleigh.

Price, Cynthia
1979 *19th Century Ceramics in the Eastern Ozark Boarder Region.* Monograph Series 1. Center of Archaeological Research, Southwest Missouri University, Springfield.

Reid, Dawn
2002 *Evaluation of the Proposed SCE&G Westvaco-Thomas Island 115kV Transmission Line, Charleston and Berkeley Counties, South Carolina.* Brockington and Associates, Charleston.

Ryan, Thomas M.
1972 *Archaeological Survey of the Columbia Zoological Park, Richland and Lexington Counties, South Carolina*. Research Manuscript Series 37. South Carolina Institute of Archaeology and Anthropology, University of South Carolina, Columbia.

Sassaman, Kenneth E., Mark J. Brooks, Glen T. Hanson, and David G. Anderson
1990 *Native American Prehistory of the Middle Savannah River Valley*. Savannah River Archaeological Research Papers 1. South Carolina Institute of Archaeology and Anthropology, University of South Carolina, Columbia.

Schneider, David B. and Sarah Fick
1989 *Berkeley County Historical and Architectural Inventory Survey*

Report. Preservation Consultants, Inc., Charleston, S.C.

Sellers, Leilla
1934 *Charleston Business on the Eve of the American Revolution.* University of North Carolina Press, Chapel Hill.

Service, E.M.
1966 *The Hunters.* Prentice-Hall, Englewood Cliffs.

Sirmans, M. Eugene
1966 *Colonial South Carolina: A Political History 1663-1763.* University of North Carolina Press, Chapel Hill.

South, Stanley A.
1976 An Archaeological Survey of Southeastern North Carolina. *South Carolina Institute of Archaeology and Anthropology Notebook* 93.

1977 *Method and Theory in Historical Archaeology.* Academic Press, New York.

Stoltman, James B.
1974 *Groton Plantation: An Archaeological Study of a South Carolina Locality.* Monographs of the Peabody Museum 1, Harvard University, Cambridge.

Stoney, Samuel Gaillard
1938 *Plantations of the South Carolina Low Country.* Carolina Art Association, Charleston, South Carolina.

Taylor, Richard L. (editor)
1984 *Cultural Resources Survey of the Proposed Pee Dee Electric Generating Facility in Florence County, South Carolina.* Commonwealth Associates, Jackson, Michigan.

Townsend, Jan, John H. Sprinkle, Jr., and John Knoerl
1993 *Guidelines for Evaluating and Registering Historical Archaeological Sites and Districts.* Bulletin 36. National Park Service, National Register of Historic Places, Washington, D.C.

Trinkley, Michael
1980a *Additional Investigations at 38LX5.* South Carolina Department of Highways and Public Transportation, Columbia.

1980b *Investigation of the Woodland Period along the South Carolina Coast.* Ph.D. dissertation. Department of Anthropology, University of North Carolina, Chapel Hill.

1985 *Archaeological Survey of S-33 Gibson Tract B Borrow Pit.* S.C. Department of Transportation.

1990 *An Archaeological Context for the South Carolina Woodland Period.* Chicora Foundation Research Series 22. Chicora Foundation, Inc., Columbia, S.C.

Trinkley, Michael and Lee Tippett
1980 *Archaeological Survey of the Mark Clark Expressway, Charleston and Berkeley Counties, South Carolina.* S.C. Department of Transportation.

Trinkley, Michael ,Debi Hacker, and Natalie Adams
1991 *Life in the Pee Dee: Prehistoric and Historic Research on the Roche Carolina Tract, Florence County, South Carolina.* Research Series *39.* Chicora Foundation, Inc.,

Columbia.

Ver Steeg, Clarence L.
1975 *Origins of a Southern Mosaic.* University of Georgia Press, Athens.

Vivian, Daniel J.
n.d. *South Carolina Statewide Survey of Historic Properties.* State Historic Preservation Office, Columbia.

Von Loewe, Pete, Pat Hendrix, and Eric Poplin
1999 *Cultural Resources Inventory of the Skatell Tract, Berkeley County, South Carolina.* Brockington and Associates, Charleston.

Walker, Legare
1941 *Dorchester County.* Charleston.

Walthall, John A.
1980 *Prehistoric Indians of the Southeast: Archaeology of Alabama.* University of Alabama Press, University.

Ward, Trawick
1978 *The Archaeology of Whites Creek, Marlboro County, South Carolina*. Research Laboratories of Anthropology, University of North Carolina, Chapel Hill.

1983 Whites Creek: The Second Time Around. *South Carolina Antiquities* 15:63-65.

Waterhouse, Richard
1975 England, the Caribbean, and the Settlement of Carolina. *Journal of American Studies* 9:259-281.

Williams, Stephen B. (editor)
1965 *The Paleo-Indian Era: Proceedings of the 20th Southeastern Archaeological Conference.* Bulletin 2. Southeastern Archaeological Conference.

Wood, Peter
1974 *Black Majority.* W.W. Norton, New York.

Yohe, Robert M., II
1996 Analysis of Flaked Stone Artifacts. In *Archaeological Laboratory Methods: An Introduction,* edited by Mark Q. Sutton and Brooke S. Arkush, pp. 39-68. Kendall/Hunt Publishing, Dubuque, Iowa.

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